

CONTENTS

Regular papers

- Structural elucidation of the novel type VII group B *Streptococcus* capsular polysaccharide by high resolution NMR spectroscopy
G. Kogan, J.-R. Brisson (Ottawa, Canada), D.L. Kasper (Boston, MA, USA), C. von Hunolstein, G. Orefici (Rome, Italy) and H.J. Jennings (Ottawa, Canada) 1
- Conformational analysis of heparin epoxide in aqueous solution. An NMR relaxation study
M. Hricovíni, M. Guerrini, G. Torri (Milan, Italy), S. Piani and F. Ungarelli (Bologna, Italy) 11
- Conformational analysis of heparin epoxide: molecular mechanics computations
D.R. Ferro, J. Gajdoš, M. Ragazzi (Milan, Italy), F. Ungarelli and S. Piani (Bologna, Italy) 25
- Tungstate complexes of aldoses and ketoses of the *lyxo* series. Multinuclear NMR evidence for chelation by one or two oxygen atoms borne by the side chain of the furanose ring
S. Chapelle and J.-F. Verchère (Mont-Saint-Aignan, France). 39
- Synthesis of a pentasaccharide fragment of Polysaccharide II of *Mycobacterium tuberculosis*
V. Pozsgay and J.B. Robbins (Bethesda, MD, USA) 51
- Structural analysis of the carbohydrate moiety of arabinogalactan-proteins from stigmas and styles of *Nicotiana glauca*
A.M. Gane, D. Craik, S.L.A. Munro, G.J. Howlett, A.E. Clarke and A. Bacic (Parkville, Australia) . 67
- Reaction of enzymes with starch granules: kinetics and products of the reaction with glucoamylase
A. Kimura and J.F. Robyt (Ames, IA, USA) 87
- Chemical synthesis of 6'- α -maltosyl-maltotriose, a branched oligosaccharide representing the branch point of starch
M.S. Motawia, C.E. Olsen, K. Enevoldsen, J. Marcussen and B.L. Møller (Copenhagen, Denmark) . 109
- Hydrolysis of the GlcNAc oxazoline: deamidation and acyl rearrangement
R. Jha and J.T. Davis (College Park, MD, USA) 125
- Characterization of five type II arabinogalactan-protein fractions from red wine of increasing uronic acid content
P. Pellerin, S. Vidal, P. Williams and J.-M. Brillouet (Montpellier, France) 135
- Characterization of high pI α -glucosidase from germinated barley seeds: substrate specificity, subsite affinities and active-site residues
H. Im and C.A. Henson (Madison, WI, USA). 145

Partial purification and characterization of nitrophenyl maltosaccharide-hydrolyzing enzymes from <i>Lactobacillus</i> sp. no. 26X H. Bender (Freiburg, Germany)	161
<i>Notes</i>	
Stereoselective preparation of alkyl glycosides of 2-acetamido-2-deoxy- α -D-glucopyranose by nonclassical halide-ion catalysis and synthesis and NMR spectroscopy of α -D-Gal <i>p</i> -(1 \rightarrow 3)- α -D-Glc- <i>p</i> NAc-OMe V. Pozsgay (Bethesda, MD, USA) and B. Coxon (Gaithersburg, MD, USA)	171
Trialkylsilyl derivatives of cyclomaltoheptaose, cellulose, and amylose: rearrangement during methylation analysis P. Mischnick, M. Lange, M. Gohdes (Hamburg, Germany), A. Stein and K. Petzold (Jena, Germany)	179
Structural study of a polysaccharide from the seeds of <i>Borassus flabellifer</i> Linn. A. Awal, Q.N. Haq, M.A. Quader and M. Ahmed (Dhaka, Bangladesh)	189
<i>Regular papers</i>	
Relative reducing abilities in vitro of some hydroxy-containing compounds, including monosaccharides, towards vanadium(V) and molybdenum(VI) R.P. Bandwar and C.P. Rao (Bombay, India)	197
The crystal structure of methyl β -cellotrioside monohydrate 0.25 ethanolate and its relationship to cellulose II S. Raymond, B. Henrissat, D. Tran Qui, Å. Kvik and H. Chanzy (Grenoble, France)	209
Synthesis of 2- and 4-nitrophenyl β -glycosides of β -(1 \rightarrow 4)-D-xylo-oligosaccharides of dp 2-4 K. Takeo, Y. Ohguchi, R. Hasegawa and S. Kitamura (Kyoto, Japan)	231
Structure of the <i>Hafnia alvei</i> strain PCM 1188 O-specific polysaccharide A. Gamian, E. Katzenellenbogen, E. Romanowska (Wroclaw, Poland), J.M. García Fernández (Seville, Spain), C. Pedersen (Lyngby, Denmark), J. Ulrich and J. Defaye (Grenoble, France)	245
Molecular weight manipulation of chitosan I: kinetics of depolymerization by nitrous acid G.G. Allan and M. Peyron (Seattle, WA, USA)	257
Molecular weight manipulation of chitosan II: prediction and control of extent of depolymerization by nitrous acid G.G. Allan and M. Peyron (Seattle, WA, USA)	273
Structure of the O-specific side chain of the <i>Escherichia coli</i> O128 lipopolysaccharide P. Sengupta, T. Bhattacharyya (Calcutta, India), A.S. Shashkov (Moscow, Russian Federation), H. Kochanowski (Freiburg, Germany) and S. Basu (Calcutta, India)	283
Metabolism of xyloglucan generates xylose-deficient oligosaccharide subunits of this polysaccharide in etiolated peas R. Guillén, W.S. York, M. Pauly, J. An, G. Impallomeni, P. Albersheim and A.G. Darvill (Athens, GA, USA)	291
Chemoenzymatic synthesis of 6 ^ω -S- α -D-glucopyranosyl-6 ^ω -thiomaltooligosaccharides: their binding to <i>Aspergillus niger</i> glucoamylase G1 and its starch-binding domain C. Apparau, H. Driguez (Grenoble, France), G. Williamson (Norwich, UK) and B. Svensson (Copenhagen, Denmark)	313

Notes

Deprotection of <i>p</i> -methoxyphenyl pyranosides by anodic oxidation S. Iacobucci, N. Filippova and M. d'Alarcao (Medford, MA, USA)	321
Synthesis of the 2-deoxy analogue of the methyl α -glycoside of the monosaccharide repeating unit of the O-polysaccharide of <i>Vibrio cholerae</i> O:1 Y. Ogawa, P. Lei and P. Kováč (Bethesda, MD, USA)	327
Convenient preparation of monoacylated β -cyclodextrin (cyclomaltoheptaose) on the secondary hydroxyl side A.Y. Hao, L.H. Tong, F.S. Zhang and X.M. Gao (Lanzhou, P.R. China)	333
Synthesis of methylene acetals in the D-glucose, D-galactose, D-mannose, and D-fructose series by an improved transacetalation reaction from dimethoxymethane R. Nougier, V. Mignon and J.-L. Gras (Marseille, France)	339
A facile synthesis of α -D-galactopyranosyl-(1 \rightarrow 1)- α -D-galactopyranoside and its analogues R.H. Youssef, R.W. Bassily, A.N. Asaad, R.I. El-Sokkary and M.A. Nashed (Alexandria, Egypt) . .	347
NMR reinvestigation of the capsular K27 polysaccharide (K27 antigen) from <i>Escherichia coli</i> O8:K27:H ⁻ B. Jann, A.S. Shashkov, H. Kochanowski and K. Jann (Freiburg, Germany)	353
<i>Preliminary communications</i>	
Synthesis of model glycolipids having two long alkyl chains Z. Zhang, K. Fukunaga (Yamaguchi, Japan), T. Shimizu (Ibaraki, Japan) and K. Nakao (Yamaguchi, Japan)	C1
Cyclic carbonates as protecting groups in cyclitol chemistry T. Desai, J. Gigg and R. Gigg (London, UK)	C5
<i>Corrigendum</i>	C9
<i>Author index</i>	C11
<i>Subject index</i>	C13
<i>Contents</i>	C19